

AMSAT News Service Weekly Bulletins

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AMSAT NEWS SERVICE

ANS-204

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on <http://www.amsat.org> publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-155 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 204.01

From AMSAT HQ KENSINGTON, MD.

DATE July 23, 2017

To ALL RADIO AMATEURS

BID: \$ANS-204.01

VE9 on Satellite

CANADA, VE. Mike, KI1U will be QRV as KI1U/VE9 from Grand Manan Island, IOTA NA-014, from July 23 to 30. Activity will be on 40 to 10 meters using CW and various digital modes, including possibly the new mode FT8, as well as possible activity on the FM satellites. QSL to home call.

[ANS thanks the ARRL DX Bulletin 29 - ARLD029 for the above information]

Her Majesty's Royal Mint Special Event on Satellites

Members of the Barry Amateur Radio Society will be operating from 'Her Majesty's Royal Mint' at Llantrisant, South Wales, UK, call sign - GB4RME (Royal Mint Experience) between July 30th and August 5, 2017

Locator: I081HN WAB:ST08

The hours of operation on a daily basis have been limited, but we expect to be operational between 0800 - 1730 hrs GMT.

It does restrict operation for satellite operations and passes in addition of course A0-73 operates in data mode Monday to Friday when illuminated (Auto mode). However on the first Sunday of the event (30th) and the last day (Saturday 5th August) the transponder mode should be available if commanded.

The general other activities of the event will be on the HF bands using CW, SSB, DATA RTTY and JT65.

This event will also include an exhibition and demonstrations of "Amateur Radio". How key events, especially using satellites and the ISS, are key players in the role of education and "STEM"

Note also this event also co-incident with the event taking place for "YOTA 2917" (GB17YOTA) and should be significant as a prime contact for youngsters participating from world wide.

This special event station is a world first, operating from within a Mint, and a Royal one at that.

Details about the mint can be viewed at:
<http://www.royalmint.com/en/the-royal-mint-experience>

QSL via GW0ANA, direct, by the Bureau, LoTW and ClubLog.
There will be a Web page set up for the operation on QRZ.com.

[ANS thanks Ken, GW1FY, and Southgate for the above information]

V47JA St. Kitts on S0-50

John, V47JA/W5JON, has been operating on S0-50 from St. Kitts with some success. The problem for him is that there is terrain in the way from about 320 degrees, north to east. So he is limited to what he can work from his house there.

John is putting together what he will need to operate portable from the top of the hill where he will be able to see down to the horizon to the north. Once he has everything together he will be able to work down low and work more stations in the US. He is using an Arrow antenna and two FM mobile units. He is not a new comeer to the birds but hasn't operated since the HEO's went away years ago.

He will be on St. Kitts for a few weeks and he hopes to work everyone that needs it. S0-50 only. He will QSL via LOTW but might wait until he returns to Texas to get everyone uploaded.

[ANS thanks John, K8YSE, for the above information]

AMSAT 2017 Symposium Call for Papers

This is the first call for papers for the 2017 AMSAT Annual Meeting and Space Symposium to be held on the weekend of October 27, 28, 29, 2017 at the Silver Legacy Resort, Reno, Nevada. Proposals for papers, symposium

presentations and poster presentations are invited on any topic of interest to the amateur satellite community. We request a tentative title of your presentation as soon as possible, with final copy to be submitted by October 6 for inclusion in the printed proceedings. Abstracts and papers should be sent to Dan Schultz N8FGV at n8fgv at amsat.org

[ANS thanks Dan, N8FGV, for the above information]

IARU Aligns Satellite Coordination Guidelines with ITU WRC-15 Decisions

As the global federation of national associations of radio amateurs in more than 150 countries, the International Amateur Radio Union (IARU) for many years has provided frequency coordination services for amateur satellites free of charge. Often these satellites are constructed by students at universities and other institutions as a part of their educational experience. In general, they have been licensed to operate in the amateur-satellite service, which is defined by the Radio Regulations of the International Telecommunication Union (ITU) as having the "...purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest."

Some administrations have issued experimental licenses for such satellites operating in amateur-satellite frequency bands. The IARU has coordinated these satellites as well, to reduce the possibility of harmful interference that might result from uncoordinated operation. Since 1 July 2014 it has not been possible to coordinate experimental satellites in the 144-146 MHz band because of the high probability of harmful interference in this heavily used band.

Educational satellite projects have grown in popularity as launch opportunities have increased. In 2012 the ITU World Radiocommunication Conference took note of the proliferation of what in Resolution 757 (WRC-12) it called "nanosatellites and picosatellites" and invited WRC-18 (now scheduled for 2019) to consider steps to facilitate their deployment and operation. Two Reports, ITU-R SA.2312 (09/2014) and ITU-R SA.2348 (05/2015), are instructive regarding the characteristics, definitions, spectrum requirements, and notification procedures of and for such satellites, which generally must use spectrum below 1 GHz for operational reasons.

At the following WRC in 2015, in place of Resolution 757 the Member States of the ITU adopted Resolution 659 (WRC-15) in which it was noted that the use of 144-146 MHz and 435-438 MHz by non-amateur satellites is not in accordance with the definition of the amateur-satellite service in the Radio Regulations. Resolution 659 cites the two reports mentioned above and makes it clear that the spectrum needs of what are now called "non-geostationary satellites with short duration missions" should be met either within the service in which the space station is operating or within the space operation service. Further, if new or upgraded allocations to the space operation service are required, studies should be limited to the frequency ranges 150.05-174 MHz and 400.15-420 MHz.

Accordingly, effective 1 August 2017 the IARU will be following revised guidelines for satellite frequency coordination.

The strong preference is for all satellites using spectrum allocated to the amateur and amateur-satellite services to operate under amateur licenses and within the definition of the amateur-satellite service and the service-specific Article 25 of the Radio Regulations. The IARU believes the

definition is sufficiently broad to encompass nearly all educational satellite projects that include giving students hands-on experience with radiocommunication and are conducted under an amateur license.

The IARU will only coordinate a non-amateur satellite if an administration directs in writing that it be operated in an amateur-satellite band under an experimental or other non-amateur license.

Satellites with combined amateur and non-amateur missions will continue to be coordinated.

[ANS thanks the IARU for the above information]

Have you seen the Mayak satellite?

By Deborah Byrd, EarthSky News in HUMAN WORLD | SPACE | July 18, 2017
<http://earthsky.org/space/mayak-bright-russian-satellite-july-august-2017>

On July 14, an amateur group in Russia launched a small satellite called Mayak. They said it would become the "brightest shooting star" in the sky. Why'd they do it? Here's how to look for it.

A team of young Russians – led by Moscow State Mechanical Engineering University (MAMI) – managed to raise more than \$30,000 on Russian crowdfunding website Boomstarter, in order to launch their own small satellite. The satellite is called Mayak, which means beacon in English.

It's a cubesat, roughly the size of a loaf of bread. And it's up there. Mayak went into space on July 14, 2017, as part of a secondary payload, launched on a Soyuz 2.1v vehicle from Baikonur Cosmodrome in Kazakhstan.

It'll be orbiting Earth, about 370 miles (600 km) high, for the coming month. It's supposed to be very, very bright, so bright that it would, supposedly, ruin night skies and threaten astronomy.

Satellite tracking websites like Heavens Above are already trying to follow it, hoping to offer information on Mayak's passes over various parts of the world. Heavens Above commented: "A new small satellite has just been launched which will deploy a large reflector once in orbit and has the potential to be very bright. We now have a provisional orbit from Space-Track which you can use to generate predictions. Please note that the magnitude estimates are possibly very inaccurate until actual observations are reported."

Heavens-Above.com now has pass predictions up for the new Russian reflector sat "Mayak," listing it as NORAD ID 2017-042F/42830.
<http://www.heavens-above.com/PassSummary.aspx?satid=42830>

Plus Mayak has its own app, available to those who back the project.
See: <http://cosmomayak.com/default#mobileapp>

How bright is Mayak? Brightness estimates have varied, but the idea was that it would be the brightest shooting star in the sky. Some estimated it would be nearly as bright as Venus, the sky's brightest planet. Its brightness is part of its purpose, which is partly, simply, to inspire people.

From Mayak's website: The main objective of the project is to make cosmonautics and space research popular in Russia, as well as to make scientific and technical researches attractive to youth.

Also from Mayak's website:

Question: Why did you build the satellite?

Answer: Everyone is used to think that flying into space is a privilege of state and military corporations. We wanted to prove that space is simpler and closer than it seems, and a team of enthusiasts can launch a satellite into space!

This The video shows Mayak's launch, along with 72 other satellites, on July 14, 2017 at 9:36 Moscow Time from the Baikonur cosmodrome: <https://youtu.be/E0X0KfEnJAK>

[ANS thanks EarthSky News for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KT4TZ
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